

1632
CRF Processing Date: 9/26/2000
Edited by: *[Signature]*
Verified by: *[Signature]* (STIC Staff)

Serial Number: 09/479,467A

ENTERED**RECEIVED**

- Changed a file from non-ASCII to ASCII
- Changed the margins in cases where the sequence text was "wrapped" down to the next line
- Edited a format error in the Current Application Data section, specifically:

TECH CENTER 1600/2900

- Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____
- Added the mandatory heading and subheadings for "Current Application Data".
- Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- Inserted colons after headings/subheadings. Headings edited included: _____
- Deleted extra, invalid, headings used by an applicant, specifically:
despite C1407 and C1417
- Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____
- Inserted mandatory headings, specifically: _____
- Corrected an obvious error in the response, specifically: _____
- Edited identifiers where upper case is used but lower case is required, or vice versa.
- Corrected an error in the Number of Sequences field, specifically: _____
- A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- Other: *Sequence 2 - fixed amino acid numbering*

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

1632

RAW SEQUENCE LISTING DATE: 09/26/2000
 PATENT APPLICATION: US/09/479,467A TIME: 15:01:58

Input Set : A:\2919bseq.001
 Output Set: N:\CRF3\09262000\I479467A.raw

Does Not Comply
 Corrected Diskette Needed

3 <110> APPLICANT: Sternberg, Paul W.
 4 Barr, Maureen M.
 6 <120> TITLE OF INVENTION: POLYCYSTIC KIDNEY DISEASE GENE HOMOLOGS REQUIRED FOR MALE MATING
 7 BEHAVIOR IN NEMATODES AND ASSAYS BASED THEREON
 9 <130> FILE REFERENCE: 18021-2901B
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/479,467A
 C--> 12 <141> CURRENT FILING DATE: 2000-01-06
 14 <150> PRIOR APPLICATION NUMBER: 09/479,467
 15 <151> PRIOR FILING DATE: 2000-01-06
 17 <150> PRIOR APPLICATION NUMBER: 60/115,127
 18 <151> PRIOR FILING DATE: 1999-01-06
 20 <160> NUMBER OF SEQ ID NOS: 16
 22 <170> SOFTWARE: PatentIn Ver. 2.0

ERRORED SEQUENCES

```

1111 <210> SEQ ID NO: 2
1112 <211> LENGTH: 4303
1113 <212> TYPE: PRT
1114 <213> ORGANISM: Homo sapiens PKD-1 protein
1116 <400> SEQUENCE: 2
1117 Met Pro Pro Ala Ala Pro Ala Arg Leu Ala Leu Gly Leu Gly
1118      1          5          10          15
1120 Leu Trp Leu Gly Ala Leu Ala Gly Gly Pro Gly Arg Gly Cys Gly Pro
1121      20         25          30
1123 Cys Glu Pro Pro Cys Leu Cys Gly Pro Ala Pro Gly Ala Ala Cys Arg
1124      35         40          45
1126 Val Asn Cys Ser Gly Arg Gly Leu Arg Thr Leu Gly Pro Ala Leu Arg
1127      50         55          60
1129 Ile Pro Ala Asp Ala Thr Glu Leu Asp Val Ser His Asn Leu Leu Arg
1130      65         70          75          80
1132 Ala Leu Asp Val Gly Leu Leu Ala Asn Leu Ser Ala Leu Ala Glu Leu
1133      85         90          95
1135 Asp Ile Ser Asn Asn Lys Ile Ser Thr Leu Glu Glu Gly Ile Phe Ala
1136      100        105         110
1138 Asn Leu Phe Asn Leu Ser Glu Ile Asn Leu Ser Gly Asn Pro Phe Glu
1139      115        120         125
1141 Cys Asp Cys Gly Leu Ala Trp Leu Pro Gln Trp Ala Glu Glu Gln Gln
1142      130        135         140
1144 Val Arg Val Val Gln Pro Glu Ala Ala Thr Cys Ala Gly Pro Gly Ser
1145      145        150         155         160
1147 Leu Ala Gly Gln Pro Leu Leu Gly Ile Pro Leu Leu Asp Ser Gly Cys
1148      165        170         175
1150 Gly Glu Glu Tyr Val Ala Cys Leu Pro Asp Asn Ser Ser Gly Thr Val
1151      180        185         190
1153 Ala Ala Val Ser Phe Ser Ala Ala His Glu Gly Leu Leu Gln Pro Glu

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PATENT APPLICATION: US/09/479,467A

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Output Set: N:\CRF3\09262000\I479467A.raw

1154 195 200 205
1156 Ala Cys Ser Ala Phe Cys Phe Ser Thr Gly Gln Gly Leu Ala Ala Leu
1157 210 215 220
1159 Ser Glu Gln Gly Trp Cys Leu Cys Gly Ala Ala Gln Pro Ser Ser Ala
1160 225 230 235 240
1162 Ser Phe Ala Cys Leu Ser Leu Cys Ser Gly Pro Pro Ala Pro Pro Ala
1163 245 250 255
1165 Pro Thr Cys Arg Gly Pro Thr Leu Leu Gln His Val Phe Pro Ala Ser
1166 260 265 270
1168 Pro Gly Ala Thr Leu Val Gly Pro His Gly Pro Leu Ala Ser Gly Gln
1169 275 280 285
1171 Leu Ala Ala Phe His Ile Ala Ala Pro Leu Pro Val Thr Asp Thr Arg
1172 290 295 300
1174 Trp Asp Phe Gly Asp Gly Ser Ala Glu Val Asp Ala Ala Gly Pro Ala
1175 305 310 315 320
1177 Ala Ser His Arg Tyr Val Leu Pro Gly Arg Tyr His Val Thr Ala Val
1178 325 330 335
1180 Leu Ala Leu Gly Ala Gly Ser Ala Leu Leu Gly Thr Asp Val Gln Val
1181 340 345 350
1183 Glu Ala Ala Pro Ala Ala Leu Glu Leu Val Cys Pro Ser Ser Val Gln
1184 355 360 365
1186 Ser Asp Glu Ser Leu Asp Leu Ser Ile Gln Asn Arg Gly Gly Ser Gly
1187 370 375 380
1189 Leu Glu Ala Ala Tyr Ser Ile Val Ala Leu Gly Glu Glu Pro Ala Arg
1190 385 390 395 400
1192 Ala Val His Pro Leu Cys Pro Ser Asp Thr Glu Ile Phe Pro Gly Asn
1193 405 410 415
1195 Gly His Cys Tyr Arg Leu Val Val Glu Lys Ala Ala Trp Leu Gln Ala
1196 420 425 430
1198 Gln Glu Gln Cys Gln Ala Trp Ala Gly Ala Ala Leu Ala Met Val Asp
1199 435 440 445
1201 Ser Pro Ala Val Gln Arg Phe Leu Val Ser Arg Val Thr Arg Ser Leu
1202 450 455 460
1204 Asp Val Trp Ile Gly Phe Ser Thr Val Gln Gly Val Glu Val Gly Pro
1205 465 470 475 480
1207 Ala Pro Gln Gly Glu Ala Phe Ser Leu Glu Ser Cys Gln Asn Trp Leu
1208 485 490 495
1210 Pro Gly Glu Pro His Pro Ala Thr Ala Glu His Cys Val Arg Leu Gly
1211 500 505 510
1213 Pro Thr Gly Trp Cys Asn Thr Asp Leu Cys Ser Ala Pro His Ser Tyr
1214 515 520 525
1216 Val Cys Glu Leu Gln Pro Gly Gly Pro Val Gln Asp Ala Glu Asn Leu
1217 530 535 540
1219 Leu Val Gly Ala Pro Ser Gly Asp Leu Gln Gly Pro Leu Thr Pro Leu
1220 545 550 555 560
1222 Ala Gln Gln Asp Gly Leu Ser Ala Pro His Glu Pro Val Glu Val Met
1223 565 570 575
1225 Val Phe Pro Gly Leu Arg Leu Ser Arg Glu Ala Phe Leu Thr Thr Ala
1226 580 585 590

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1228 Glu Phe Gly Thr Gln Glu Leu Arg Arg Pro Ala Gln Leu Arg Leu Gln
 1229 595 600 605
 1231 Val Tyr Arg Leu Leu Ser Thr Ala Gly Thr Pro Glu Asn Gly Ser Glu
 1232 610 615 620
 1234 Pro Glu Ser Arg Ser Pro Asp Asn Arg Thr Gln Leu Ala Pro Ala Cys
 1235 625 630 635 640
 1237 Met Pro Gly Gly Arg Trp Cys Pro Gly Ala Asn Ile Cys Leu Pro Leu
 1238 645 650 655
 1240 Asp Ala Ser Cys His Pro Gln Ala Cys Ala Asn Gly Cys Thr Ser Gly
 1241 660 665 670
 1243 Pro Gly Leu Pro Gly Ala Pro Tyr Ala Leu Trp Arg Glu Phe Leu Phe
 1244 675 680 685
 1246 Ser Val Pro Ala Gly Pro Pro Ala Gln Tyr Ser Val Thr Leu His Gly
 1247 690 695 700
 1249 Gln Asp Val Leu Met Leu Pro Gly Asp Leu Val Gly Leu Gln His Asp
 1250 705 710 715 720
 1252 Ala Gly Pro Gly Ala Leu Leu His Cys Ser Pro Ala Pro Gly His Pro
 1253 725 730 735
 1255 Gly Pro Arg Ala Pro Tyr Leu Ser Ala Asn Ala Ser Ser Trp Leu Pro
 1256 740 745 750
 1258 His Leu Pro Ala Gln Leu Glu Gly Thr Trp Gly Cys Pro Ala Cys Ala
 1259 755 760 765
 1261 Leu Arg Leu Leu Ala Gln Arg Glu Gln Leu Thr Val Leu Leu Gly Leu
 1262 770 775 780
 1264 Arg Pro Asn Pro Gly Leu Arg Leu Pro Gly Arg Tyr Glu Val Arg Ala
 1265 785 790 795 800
 1267 Glu Val Gly Asn Gly Val Ser Arg His Asn Leu Ser Cys Ser Phe Asp
 1268 805 810 815
 1270 Val Val Ser Pro Val Ala Gly Leu Arg Val Ile Tyr Pro Ala Pro Arg
 1271 820 825 830
 1273 Asp Gly Arg Leu Tyr Val Pro Thr Asn Gly Ser Ala Leu Val Leu Gln
 1274 835 840 845
 1276 Val Asp Ser Gly Ala Asn Ala Thr Ala Arg Trp Pro Gly Gly
 1277 850 855 860
 1279 Ser Leu Ser Ala Arg Phe Glu Asn Val Cys Pro Ala Leu Val Ala Thr
 1280 865 870 875 880
 1282 Phe Val Pro Ala Cys Pro Trp Glu Thr Asn Asp Thr Leu Phe Ser Val
 1283 885 890 895
 1285 Val Ala Leu Pro Trp Leu Ser Glu Gly Glu His Val Val Asp Val Val
 1286 900 905 910
 1288 Val Glu Asn Ser Ala Ser Arg Ala Asn Leu Ser Leu Arg Val Thr Ala
 1289 915 920 925
 1291 Glu Glu Pro Ile Cys Gly Leu Arg Ala Thr Pro Ser Pro Glu Ala Arg
 1292 930 935 940
 1294 Val Leu Gln Gly Val Leu Val Arg Tyr Ser Pro Val Val Glu Ala Gly
 1295 945 950 955 960
 1297 Ser Asp Met Val Phe Arg Trp Thr Ile Asn Asp Lys Gln Ser Leu Thr
 1298 965 970 975
 1300 Phe Gln Asn Val Val Phe Asn Val Ile Tyr Gln Ser Ala Ala Val Phe

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1301	980	985	990
1303	Lys Leu Ser Leu Thr Ala Ser Asn His Val Ser Asn Val Thr Val Asn		
1304	995	1000	1005
1306	Tyr Asn Val Thr Val Glu Arg Met Asn Arg Met Gln Gly Leu Gln Val		
1307	1010	1015	1020
1309	Ser Thr Val Pro Ala Val Leu Ser Pro Asn Ala Thr Leu Ala Leu Thr		
E--> 1310	025 1025	1030	1035 1040
1312	Ala Gly Val Leu Val Asp Ser Ala Val Glu Val Ala Phe Leu Trp Thr		
1313	1045	1050	1055
1315	Phe Gly Asp Gly Glu Gln Ala Leu His Gln Phe Gln Pro Pro Tyr Asn		
1316	1060	1065	1070
1318	Glu Ser Phe Pro Val Pro Asp Pro Ser Val Ala Gln Val Leu Val Glu		
1319	1075	1080	1085
1321	His Asn Val Thr His Thr Tyr Ala Ala Pro Gly Glu Tyr Leu Leu Thr		
1322	1090	1095	1100
1324	Val Leu Ala Ser Asn Ala Phe Glu Asn Leu Thr Gln Gln Val Pro Val		
E--> 1325	105 105	1110	1115 1120
1327	Ser Val Arg Ala Ser Leu Pro Ser Val Ala Val Gly Val Ser Asp Gly		
1328	1125	1130	1135
1330	Val Leu Val Ala Gly Arg Pro Val Thr Phe Tyr Pro His Pro Leu Pro		
1331	1140	1145	1150
1333	Ser Pro Gly Gly Val Leu Tyr Thr Trp Asp Phe Gly Asp Gly Ser Pro		
1334	1155	1160	1165
1336	Val Leu Thr Gln Ser Gln Pro Ala Ala Asn His Thr Tyr Ala Ser Arg		
1337	1170	1175	1180
1339	Gly Thr Tyr His Val Arg Leu Glu Val Asn Asn Thr Val Ser Gly Ala		
E--> 1340	185 185	1190	1195 1200
1342	Ala Ala Gln Ala Asp Val Arg Val Phe Glu Glu Leu Arg Gly Leu Ser		
1343	1205	1210	1215
1345	Val Asp Met Ser Leu Ala Val Glu Gln Gly Ala Pro Val Val Val Ser		
1346	1220	1225	1230
1348	Ala Ala Val Gln Thr Gly Asp Asn Ile Thr Trp Thr Phe Asp Met Gly		
1349	1235	1240	1245
1351	Asp Gly Thr Val Leu Ser Gly Pro Glu Ala Thr Val Glu His Val Tyr		
1352	1250	1255	1260
1354	Leu Arg Ala Gln Asn Cys Thr Val Thr Val Gly Ala Gly Ser Pro Ala		
E--> 1355	265 265	1270	1275 1280
1357	Gly His Leu Ala Arg Ser Leu His Val Leu Val Phe Val Leu Glu Val		
1358	1285	1290	1295
1360	Leu Arg Val Glu Pro Ala Ala Cys Ile Pro Thr Gln Pro Asp Ala Arg		
1361	1300	1305	1310
1363	Leu Thr Ala Tyr Val Thr Gly Asn Pro Ala His Tyr Leu Phe Asp Trp		
1364	1315	1320	1325
1366	Thr Phe Gly Asp Gly Ser Ser Asn Thr Thr Val Arg Gly Cys Pro Thr		
1367	1330	1335	1340
1369	Val Thr His Asn Phe Thr Arg Ser Gly Thr Phe Pro Leu Ala Leu Val		
E--> 1370	345 345	1350	1355 1360
1372	Leu Ser Ser Arg Val Asn Arg Ala His Tyr Phe Thr Ser Ile Cys Val		
1373	1365	1370	1375

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Input Set : A:\2919bseq.001
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1375 Glu Pro Glu Val Gly Asn Val Thr Leu Gln Pro Glu Arg Gln Phe Val
1376           1380          1385          1390
1378 Gln Leu Gly Asp Glu Ala Trp Leu Val Ala Cys Ala Trp Pro Pro Phe
1379           1395          1400          1405
1381 Pro Tyr Arg Tyr Thr Trp Asp Phe Gly Thr Glu Glu Ala Ala Pro Thr
1382           1410          1415          1420
1384 Arg Ala Arg Gly Pro Glu Val Thr Phe Ile Tyr Arg Asp Pro Gly Ser
E--> 1385 425          1430          1435          1440
1387 Tyr Leu Val Thr Val Thr Ala Ser Asn Asn Ile Ser Ala Ala Asn Asp
1388           1445          1450          1455
1390 Ser Ala Leu Val Glu Val Gln Glu Pro Val Leu Val Thr Ser Ile Lys
1391           1460          1465          1470
1393 Val Asn Gly Ser Leu Gly Leu Glu Leu Gln Gln Pro Tyr Leu Phe Ser
1394           1475          1480          1485
1396 Ala Val Gly Arg Gly Arg Pro Ala Ser Tyr Leu Trp Asp Leu Gly Asp
1397           1490          1495          1500
1399 Gly Gly Trp Leu Glu Gly Pro Glu Val Thr His Ala Tyr Asn Ser Thr
E--> 1400 505          1510          1515          1520
1402 Gly Asp Phe Thr Val Arg Val Ala Gly Trp Asn Glu Val Ser Arg Ser
1403           1525          1530          1535
1405 Glu Ala Trp Leu Asn Val Thr Val Lys Arg Arg Val Arg Gly Leu Val
1406           1540          1545          1550
1408 Val Asn Ala Ser Arg Thr Val Val Pro Leu Asn Gly Ser Val Ser Phe
1409           1555          1560          1565
1411 Ser Thr Ser Leu Glu Ala Gly Ser Asp Val Arg Tyr Ser Trp Val Leu
1412           1570          1575          1580
1414 Cys Asp Arg Cys Thr Pro Ile Pro Gly Gly Pro Thr Ile Ser Tyr Thr
E--> 1415 585          1590          1595          1600
1417 Phe Arg Ser Val Gly Thr Phe Asn Ile Ile Val Thr Ala Glu Asn Glu
1418           1605          1610          1615
1420 Val Gly Ser Ala Gln Asp Ser Ile Phe Val Tyr Val Leu Gln Leu Ile
1421           1620          1625          1630
1423 Glu Gly Leu Gln Val Val Gly Gly Arg Tyr Phe Pro Thr Asn His
1424           1635          1640          1645
1426 Thr Val Gln Leu Gln Ala Val Val Arg Asp Gly Thr Asn Val Ser Tyr
1427           1650          1655          1660
1429 Ser Trp Thr Ala Trp Arg Asp Arg Gly Pro Ala Leu Ala Gly Ser Gly
E--> 1430 665          1670          1675          1680
1432 Lys Gly Phe Ser Leu Thr Val Leu Glu Ala Gly Thr Tyr His Val Gln
1433           1685          1690          1695
1435 Leu Arg Ala Thr Asn Met Leu Gly Ser Ala Trp Ala Asp Cys Thr Met
1436           1700          1705          1710
1438 Asp Phe Val Glu Pro Val Gly Trp Leu Met Val Ala Ala Ser Pro Asn
1439           1715          1720          1725
1441 Pro Ala Ala Val Asn Thr Ser Val Thr Leu Ser Ala Glu Leu Ala Gly
1442           1730          1735          1740
1444 Gly Ser Gly Val Val Tyr Thr Trp Ser Leu Glu Glu Gly Leu Ser Trp
E--> 1445 745          1750          1755          1760
1447 Glu Thr Ser Glu Pro Phe Thr His Ser Phe Pro Thr Pro Gly Leu

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PATENT APPLICATION: US/09/479,467A

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TIME: 15:01:59

Input Set : A:\2919bseq.001
Output Set: N:\CRF3\09262000\I479467A.raw

1448	1765	1770	1775	
1450	His Leu Val Thr Met Thr Ala Gly Asn Pro Leu Gly Ser Ala Asn Ala			
1451	1780	1785	1790	
1453	Thr Val Glu Val Asp Val Gln Val Pro Val Ser Gly Leu Ser Ile Arg			
1454	1795	1800	1805	
1456	Ala Ser Glu Pro Gly Gly Ser Phe Val Ala Ala Gly Ser Ser Val Pro			
1457	1810	1815	1820	
1459	Phe Trp Gly Gln Leu Ala Thr Gly Thr Asn Val Ser Trp Cys Trp Ala			
E--> 1460	825	1830	1835	1840
1462	Val Pro Gly Gly Ser Ser Lys Arg Gly Pro His Val Thr Met Val Phe			
1463	1845	1850	1855	
1465	Pro Asp Ala Gly Thr Phe Ser Ile Arg Leu Asn Ala Ser Asn Ala Val			
1466	1860	1865	1870	
1468	Ser Trp Val Ser Ala Thr Tyr Asn Leu Thr Ala Glu Glu Pro Ile Val			
1469	1875	1880	1885	
1471	Gly Leu Val Leu Trp Ala Ser Ser Lys Val Val Ala Pro Gly Gln Leu			
1472	1890	1895	1900	
1474	Val His Phe Gln Ile Leu Leu Ala Ala Gly Ser Ala Val Thr Phe Arg			
1475	1905	1910	1915	1920
1477	Leu Gln Val Gly Gly Ala Asn Pro Glu Val Leu Pro Gly Pro Arg Phe			
1478	1925	1930	1935	
1480	Ser His Ser Phe Pro Arg Val Gly Asp His Val Val Ser Val Arg Gly			
1481	1940	1945	1950	
1483	Lys Asn His Val Ser Trp Ala Gln Ala Gln Val Arg Ile Val Val Leu			
1484	1955	1960	1965	
1486	Glu Ala Val Ser Gly Leu Gln Val Pro Asn Cys Cys Glu Pro Gly Ile			
1487	1970	1975	1980	
1489	Ala Thr Gly Thr Glu Arg Asn Phe Thr Ala Arg Val Gln Arg Gly Ser			
E--> 1490	985	1990	1995	2000
1492	Arg Val Ala Tyr Ala Trp Tyr Phe Ser Leu Gln Lys Val Gln Gly Asp			
1493	2005	2010	2015	
1495	Ser Leu Val Ile Leu Ser Gly Arg Asp Val Thr Tyr Thr Pro Val Ala			
1496	2020	2025	2030	
1498	Ala Gly Leu Leu Glu Ile Gln Val Arg Ala Phe Asn Ala Leu Gly Ser			
1499	2035	2040	2045	
1501	Glu Asn Arg Thr Leu Val Leu Val Gln Asp Ala Val Gln Tyr Val			
1502	2050	2055	2060	
1504	Ala Leu Gln Ser Gly Pro Cys Phe Thr Asn Arg Ser Ala Gln Phe Glu			
E--> 1505	065	2070	2075	2080
1507	Ala Ala Thr Ser Pro Ser Pro Arg Arg Val Ala Tyr His Trp Asp Phe			
1508	2085	2090	2095	
1510	Gly Asp Gly Ser Pro Gly Gln Asp Thr Asp Glu Pro Arg Ala Glu His			
1511	2100	2105	2110	
1513	Ser Tyr Leu Arg Pro Gly Asp Tyr Arg Val Gln Val Asn Ala Ser Asn			
1514	2115	2120	2125	
1516	Leu Val Ser Phe Phe Val Ala Gln Ala Thr Val Thr Val Gln Val Leu			
1517	2130	2135	2140	
1519	Ala Cys Arg Glu Pro Glu Val Asp Val Val Leu Pro Leu Gln Val Leu			
E--> 1520	145	2150	2155	2160

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1522	Met Arg Arg Ser Gln Arg Asn Tyr Leu Glu Ala His Val Asp Leu Arg			
1523	2165	2170	2175	
1525	Asp Cys Val Thr Tyr Gln Thr Glu Tyr Arg Trp Glu Val Tyr Arg Thr			
1526	2180	2185	2190	
1528	Ala Ser Cys Gln Arg Pro Gly Arg Pro Ala Arg Val Ala Leu Pro Gly			
1529	2195	2200	2205	
1531	Val Asp Val Ser Arg Pro Arg Leu Val Leu Pro Arg Leu Ala Leu Pro			
1532	2210	2215	2220	
1534	Val Gly His Tyr Cys Phe Val Phe Val Val Ser Phe Gly Asp Thr Pro			
E--> 1535	225	2230	2235	2240
1537	Leu Thr Gln Ser Ile Gln Ala Asn Val Thr Val Ala Pro Glu Arg Leu			
1538	2245	2250	2255	
1540	Val Pro Ile Ile Glu Gly Ser Tyr Arg Val Trp Ser Asp Thr Arg			
1541	2260	2265	2270	
1543	Asp Leu Val Leu Asp Gly Ser Glu Ser Tyr Asp Pro Asn Leu Glu Asp			
1544	2275	2280	2285	
1546	Gly Asp Gln Thr Pro Leu Ser Phe His Trp Ala Cys Val Ala Ser Thr			
1547	2290	2295	2300	
1549	Gln Arg Glu Ala Gly Gly Cys Ala Leu Asn Phe Gly Pro Arg Gly Ser			
E--> 1550	305	2310	2315	2320
1552	Ser Thr Val Thr Ile Pro Arg Glu Arg Leu Ala Ala Gly Val Glu Tyr			
1553	2325	2330	2335	
1555	Thr Phe Ser Leu Thr Val Trp Lys Ala Gly Arg Lys Glu Ala Thr			
1556	2340	2345	2350	
1558	Asn Gln Thr Val Leu Ile Arg Ser Gly Arg Val Pro Ile Val Ser Leu			
1559	2355	2360	2365	
1561	Glu Cys Val Ser Cys Lys Ala Gln Ala Val Tyr Glu Val Ser Arg Ser			
1562	2370	2375	2380	
1564	Ser Tyr Val Tyr Leu Glu Gly Arg Cys Leu Asn Cys Ser Ser Gly Ser			
E--> 1565	385	2390	2395	2400
1567	Lys Arg Gly Arg Trp Ala Ala Arg Thr Phe Ser Asn Lys Thr Leu Val			
1568	2405	2410	2415	
1570	Leu Asp Glu Thr Thr Ser Thr Gly Ser Ala Gly Met Arg Leu Val			
1571	2420	2425	2430	
1573	Leu Arg Arg Gly Val Leu Arg Asp Gly Glu Gly Tyr Thr Phe Thr Leu			
1574	2435	2440	2445	
1576	Thr Val Leu Gly Arg Ser Gly Glu Glu Gly Cys Ala Ser Ile Arg			
1577	2450	2455	2460	
1579	Leu Ser Pro Asn Arg Pro Pro Leu Gly Gly Ser Cys Arg Leu Phe Pro			
E--> 1580	465	2470	2475	2480
1582	Leu Gly Ala Val His Ala Leu Thr Thr Lys Val His Phe Glu Cys Thr			
1583	2485	2490	2495	
1585	Gly Trp His Asp Ala Glu Asp Ala Gly Ala Pro Leu Val Tyr Ala Leu			
1586	2500	2505	2510	
1588	Leu Leu Arg Arg Cys Arg Gln Gly His Cys Glu Glu Phe Cys Val Tyr			
1589	2515	2520	2525	
1591	Lys Gly Ser Leu Ser Ser Tyr Gly Ala Val Leu Pro Pro Gly Phe Arg			
1592	2530	2535	2540	
1594	Pro His Phe Glu Val Gly Leu Ala Val Val Val Gln Asp Gln Leu Gly			

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E--> 1595	545	2550	2555	2560
1597	Ala Ala Val Val Ala Leu Asn Arg Ser Leu Ala Ile Thr Leu Pro Glu	2565	2570	2575
1600	Pro Asn Gly Ser Ala Thr Gly Leu Thr Val Trp Leu His Gly Leu Thr	2580	2585	2590
1603	Ala Ser Val Leu Pro Gly Leu Leu Arg Gln Ala Asp Pro Gln His Val	2595	2600	2605
1604	Ile Glu Tyr Ser Leu Ala Leu Val Thr Val Leu Asn Glu Tyr Glu Arg	2610	2615	2620
1609	Ala Leu Asp Val Ala Ala Glu Pro Lys His Glu Arg Gln His Arg Ala	625	2630	2635
1610	Gln Ile Arg Lys Asn Ile Thr Glu Thr Leu Val Ser Leu Arg Val His	2645	2650	2655
1612	Thr Val Asp Asp Ile Gln Gln Ile Ala Ala Ala Leu Ala Gln Cys Met	2660	2665	2670
1615	Gly Pro Ser Arg Glu Leu Val Cys Arg Ser Cys Leu Lys Gln Thr Leu	2675	2680	2685
1618	His Lys Leu Glu Ala Met Met Leu Ile Leu Gln Ala Glu Thr Thr Ala	2690	2695	2700
1621	Gly Thr Val Thr Pro Thr Ala Ile Gly Asp Ser Ile Leu Asn Ile Thr	705	2710	2715
1622	Gly Asp Leu Ile His Leu Ala Ser Ser Asp Val Arg Ala Pro Gln Pro	2725	2730	2735
1625	Ser Glu Leu Gly Ala Glu Ser Pro Ser Arg Met Val Ala Ser Gln Ala	2740	2745	2750
1627	Tyr Asn Leu Thr Ser Ala Leu Met Arg Ile Leu Met Arg Ser Arg Val	2755	2760	2765
1630	Leu Asn Glu Glu Pro Leu Thr Leu Ala Gly Glu Glu Ile Val Ala Gln	2770	2775	2780
1633	Gly Lys Arg Ser Asp Pro Arg Ser Leu Leu Cys Tyr Gly Gly Ala Pro	785	2790	2795
1636	Gly Pro Gly Cys His Phe Ser Ile Pro Glu Ala Phe Ser Gly Ala Leu	2805	2810	2815
1637	Ala Asn Leu Ser Asp Val Val Gln Leu Ile Phe Leu Val Asp Ser Asn	2820	2825	2830
1640	Pro Phe Pro Phe Gly Tyr Ile Ser Asn Tyr Thr Val Ser Thr Lys Val	2835	2840	2845
1642	Ala Ser Met Ala Phe Gln Thr Gln Ala Gly Ala Gln Ile Pro Ile Glu	2850	2855	2860
1644	Arg Leu Ala Ser Glu Arg Ala Ile Thr Val Lys Val Pro Asn Asn Ser	865	2870	2875
1645	Asp Trp Ala Ala Arg Gly His Arg Ser Ser Ala Asn Ser Ala Asn Ser	2885	2890	2895
1648	Val Val Val Gln Pro Gln Ala Ser Val Gly Ala Val Val Thr Leu Asp	2900	2905	2910
1651	Ser Ser Asn Pro Ala Ala Gly Leu His Leu Gln Leu Asn Tyr Thr Leu	2915	2920	2925
1654	Leu Asp Gly His Tyr Leu Ser Glu Glu Pro Glu Pro Tyr Leu Ala Val	2930	2935	2940
E-->				

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Input Set : A:\2919bseq.001
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1669	Tyr Leu His Ser Glu Pro Arg Pro Asn Glu His Asn Cys Ser Ala Ser			
E--> 1670	945	2950	2955	2960
1672	Arg Arg Ile Arg Pro Glu Ser Leu Gln Gly Ala Asp His Arg Pro Tyr			
1673	2965	2970	2975	
1675	Thr Phe Phe Ile Ser Pro Gly Ser Arg Asp Pro Ala Gly Ser Tyr His			
1676	2980	2985	2990	
1678	Leu Asn Leu Ser Ser His Phe Arg Trp Ser Ala Leu Gln Val Ser Val			
1679	2995	3000	3005	
1681	Gly Leu Tyr Thr Ser Leu Cys Gln Tyr Phe Ser Glu Glu Asp Met Val			
1682	3010	3015	3020	
1684	Trp Arg Thr Glu Gly Leu Leu Pro Leu Glu Glu Thr Ser Pro Arg Gln			
E--> 1685	025	3030	3035	3040
1687	Ala Val Cys Leu Thr Arg His Leu Thr Ala Phe Gly Ala Ser Leu Phe			
1688	3045	3050	3055	
1690	Val Pro Pro Ser His Val Arg Phe Val Phe Pro Glu Pro Thr Ala Asp			
1691	3060	3065	3070	
1693	Val Asn Tyr Ile Val Met Leu Thr Cys Ala Val Cys Leu Val Thr Tyr			
1694	3075	3080	3085	
1696	Met Val Met Ala Ala Ile Leu His Lys Leu Asp Gln Leu Asp Ala Ser			
1697	3090	3095	3100	
1699	Arg Gly Arg Ala Ile Pro Phe Cys Gly Gln Arg Gly Arg Phe Lys Tyr			
E--> 1700	105	3110	3115	3120
1702	Glu Ile Leu Val Lys Thr Gly Trp Gly Arg Gly Ser Gly Thr Thr Ala			
1703	3125	3130	3135	
1705	His Val Gly Ile Met Leu Tyr Gly Val Asp Ser Arg Ser Gly His Arg			
1706	3140	3145	3150	
1708	His Leu Asp Gly Asp Arg Ala Phe His Arg Asn Ser Leu Asp Ile Phe			
1709	3155	3160	3165	
1711	Arg Ile Ala Thr Pro His Ser Leu Gly Ser Val Trp Lys Ile Arg Val			
1712	3170	3175	3180	
1714	Trp His Asp Asn Lys Gly Leu Ser Pro Ala Trp Phe Leu Gln His Val			
E--> 1715	185	3190	3195	3200
1717	Ile Val Arg Asp Leu Gln Thr Ala Arg Ser Ala Phe Phe Leu Val Asn			
1718	3205	3210	3215	
1720	Asp Trp Leu Ser Val Glu Thr Gly Ala Asn Gly Gly Leu Val Glu Lys			
1721	3220	3225	3230	
1723	Glu Val Leu Ala Ala Ser Asp Ala Ala Leu Leu Arg Phe Arg Arg Leu			
1724	3235	3240	3245	
1726	Leu Val Ala Glu Leu Gln Arg Gly Phe Phe Asp Lys His Ile Trp Leu			
1727	3250	3255	3260	
1729	Ser Ile Trp Asp Arg Pro Pro Arg Ser Arg Phe Thr Arg Ile Gln Arg			
E--> 1730	265	3270	3275	3280
1732	Ala Thr Cys Cys Val Leu Leu Ile Cys Leu Phe Leu Gly Ala Asn Ala			
1733	3285	3290	3295	
1735	Val Trp Tyr Gly Ala Val Gly Asp Ser Ala Tyr Ser Thr Gly His Val			
1736	3300	3305	3310	
1738	Ser Arg Leu Ser Pro Leu Ser Val Asp Thr Val Ala Val Gly Leu Val			
1739	3315	3320	3325	
1741	Ser Ser Val Val Val Tyr Pro Val Tyr Leu Ala Ile Leu Phe Leu Phe			

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Input Set : A:\2919bseq.001
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1742	3330	3335	3340
1744	Arg Met Ser Arg Ser Lys Val Ala Gly Ser Pro Ser Pro Thr Pro Ala		
E--> 1745	345	3350	3355 3360
1747	Gly Gln Gln Val Leu Asp Ile Asp Ser Cys Leu Asp Ser Ser Val Leu		
1748	3365	3370	3375
1750	Asp Ser Ser Phe Leu Thr Phe Ser Gly Leu His Ala Glu Gln Ala Phe		
1751	3380	3385	3390
1753	Val Gly Gln Met Lys Ser Asp Leu Phe Leu Asp Asp Ser Lys Ser Leu		
1754	3395	3400	3405
1756	Val Cys Trp Pro Ser Gly Glu Gly Thr Leu Ser Trp Pro Asp Leu Leu		
1757	3410	3415	3420
1759	Ser Asp Pro Ser Ile Val Gly Ser Asn Leu Arg Gln Leu Ala Arg Gly		
E--> 1760	425	3430	3435 3440
1762	Gln Ala Gly His Gly Leu Gly Pro Glu Glu Asp Gly Phe Ser Leu Ala		
1763	3445	3450	3455
1765	Ser Pro Tyr Ser Pro Ala Lys Ser Phe Ser Ala Ser Asp Glu Asp Leu		
1766	3460	3465	3470
1768	Ile Gln Gln Val Leu Ala Glu Gly Val Ser Ser Pro Ala Pro Thr Gln		
1769	3475	3480	3485
1771	Asp Thr His Met Glu Thr Asp Leu Leu Ser Ser Leu Ser Ser Thr Pro		
1772	3490	3495	3500
1774	Gly Glu Lys Thr Glu Thr Leu Ala Leu Gln Arg Leu Gly Glu Leu Gly		
E--> 1775	505	3510	3515 3520
1777	Pro Pro Ser Pro Gly Leu Asn Trp Glu Gln Pro Gln Ala Ala Arg Leu		
1778	3525	3530	3535
1780	Ser Arg Thr Gly Leu Val Glu Gly Leu Arg Lys Arg Leu Leu Pro Ala		
1781	3540	3545	3550
1783	Trp Cys Ala Ser Leu Ala His Gly Leu Ser Leu Leu Leu Val Ala Val		
1784	3555	3560	3565
1786	Ala Val Ala Val Ser Gly Trp Val Gly Ala Ser Phe Pro Pro Gly Val		
1787	3570	3575	3580
1789	Ser Val Ala Trp Leu Leu Ser Ser Ser Ala Ser Phe Leu Ala Ser Phe		
E--> 1790	585	3590	3595 3600
1792	Leu Gly Trp Glu Pro Leu Lys Val Leu Leu Glu Ala Leu Tyr Phe Ser		
1793	3605	3610	3615
1795	Leu Val Ala Lys Arg Leu His Pro Asp Glu Asp Asp Thr Leu Val Glu		
1796	3620	3625	3630
1798	Ser Pro Ala Val Thr Pro Val Ser Ala Arg Val Pro Arg Val Arg Pro		
1799	3635	3640	3645
1801	Pro His Gly Phe Ala Leu Phe Leu Ala Lys Glu Glu Ala Arg Lys Val		
1802	3650	3655	3660
1804	Lys Arg Leu His Gly Met Leu Arg Ser Leu Leu Val Tyr Met Leu Phe		
E--> 1805	665	3670	3675 3680
1807	Leu Leu Val Thr Leu Leu Ala Ser Tyr Gly Asp Ala Ser Cys His Gly		
1808	3685	3690	3695
1810	His Ala Tyr Arg Leu Gln Ser Ala Ile Lys Gln Glu Leu His Ser Arg		
1811	3700	3705	3710
1813	Ala Phe Leu Ala Ile Thr Arg Ser Glu Glu Leu Trp Pro Trp Met Ala		
1814	3715	3720	3725

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Input Set : A:\2919bseq.001
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1816	His Val Leu Leu Pro Tyr Val His Gly Asn Gln Ser Ser Pro Glu Leu		
1817	3730	3735	3740
1819	Gly Pro Pro Arg Leu Arg Gln Val Arg Leu Gln Glu Ala Leu Tyr Pro		
E--> 1820	745	3750	3755 3760
1822	Asp Pro Pro Gly Pro Arg Val His Thr Cys Ser Ala Ala Gly Gly Phe		
1823	3765	3770	3775
1825	Ser Thr Ser Asp Tyr Asp Val Gly Trp Glu Ser Pro His Asn Gly Ser		
1826	3780	3785	3790
1828	Gly Thr Trp Ala Tyr Ser Ala Pro Asp Leu Leu Gly Ala Trp Ser Trp		
1829	3795	3800	3805
1831	Gly Ser Cys Ala Val Tyr Asp Ser Gly Gly Tyr Val Gln Glu Leu Gly		
1832	3810	3815	3820
1834	Leu Ser Leu Glu Glu Ser Arg Asp Arg Leu Arg Phe Leu Gln Leu His		
E--> 1835	825	3830	3835 3840
1837	Asn Trp Leu Asp Asn Arg Ser Arg Ala Val Phe Leu Glu Leu Thr Arg		
1838	3845	3850	3855
1840	Tyr Ser Pro Ala Val Gly Leu His Ala Ala Val Thr Leu Arg Leu Glu		
1841	3860	3865	3870
1843	Phe Pro Ala Ala Gly Arg Ala Leu Ala Ala Leu Ser Val Arg Pro Phe		
1844	3875	3880	3885
1846	Ala Leu Arg Arg Leu Ser Ala Gly Leu Ser Leu Pro Leu Leu Thr Ser		
1847	3890	3895	3900
1849	Val Cys Leu Leu Phe Ala Val His Phe Ala Val Ala Glu Ala Arg		
E--> 1850	905	3910	3915 3920
1852	Thr Trp His Arg Glu Gly Arg Trp Arg Val Leu Arg Leu Gly Ala Trp		
1853	3925	3930	3935
1855	Ala Arg Trp Leu Leu Val Ala Leu Thr Ala Ala Thr Ala Leu Val Arg		
1856	3940	3945	3950
1858	Leu Ala Gln Leu Gly Ala Ala Asp Arg Gln Trp Thr Arg Phe Val Arg		
1859	3955	3960	3965
1861	Gly Arg Pro Arg Arg Phe Thr Ser Phe Asp Gln Val Ala His Val Ser		
1862	3970	3975	3980
1864	Ser Ala Ala Arg Gly Leu Ala Ala Ser Leu Leu Phe Leu Leu Leu Val		
E--> 1865	985	3990	3995 4000
1867	Lys Ala Ala Gln His Val Arg Phe Val Arg Gln Trp Ser Val Phe Gly		
1868	4005	4010	4015
1870	Lys Thr Leu Cys Arg Ala Leu Pro Glu Leu Leu Gly Val Thr Leu Gly		
1871	4020	4025	4030
1873	Leu Val Val Leu Gly Val Ala Tyr Ala Gln Leu Ala Ile Leu Leu Val		
1874	4035	4040	4045
1876	Ser Ser Cys Val Asp Ser Leu Trp Ser Val Ala Gln Ala Leu Leu Val		
1877	4050	4055	4060
1879	Leu Cys Pro Gly Thr Gly Leu Ser Thr Leu Cys Pro Ala Glu Ser Trp		
E--> 1880	065	4070	4075 4080
1882	His Leu Ser Pro Leu Leu Cys Val Gly Leu Trp Ala Leu Arg Leu Trp		
1883	4085	4090	4095
1885	Gly Ala Leu Arg Leu Gly Ala Val Ile Leu Arg Trp Arg Tyr His Ala		
1886	4100	4105	4110
1888	Leu Arg Gly Glu Leu Tyr Arg Pro Ala Trp Glu Pro Gln Asp Tyr Glu		

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Input Set : A:\2919bseq.001
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1889 4115 4120 4125
1891 Met Val Glu Leu Phe Leu Arg Arg Leu Arg Leu Trp Met Gly Leu Ser
1892 4130 4135 4140
1894 Lys Val Lys Glu Phe Arg His Lys Val Arg Phe Glu Gly Met Glu Pro
E--> 1895 145 4150 4155 4160
1897 Leu Pro Ser Arg Ser Ser Arg Gly Ser Lys Val Ser Pro Asp Val Pro
1898 4165 4170 4175
1900 Pro Pro Ser Ala Gly Ser Asp Ala Ser His Pro Ser Thr Ser Ser Ser
1901 4180 4185 4190
1903 Gln Leu Asp Gly Leu Ser Val Ser Leu Gly Arg Leu Gly Thr Arg Cys
1904 4195 4200 4205
1906 Glu Pro Glu Pro Ser Arg Leu Gln Ala Val Phe Glu Ala Leu Leu Thr
1907 4210 4215 4220
1909 Gln Phe Asp Arg Leu Asn Gln Ala Thr Glu Asp Val Tyr Gln Leu Glu
E--> 1910 225 4230 4235 4240
1912 Gln Gln Leu His Ser Leu Gln Gly Arg Arg Ser Ser Arg Ala Pro Ala
1913 4245 4250 4255
1915 Gly Ser Ser Arg Gly Pro Ser Pro Gly Leu Arg Pro Ala Leu Pro Ser
1916 4260 4265 4270
1918 Arg Leu Ala Arg Ala Ser Arg Gly Val Asp Leu Ala Thr Gly Pro Ser
1919 4275 4280 4285
1921 Arg Thr Pro Leu Arg Ala Lys Asn Lys Val His Pro Ser Ser Thr
1922 4290 4295 4300

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/479,467A

DATE: 09/26/2000

TIME: 15:02:00

Input Set : A:\2919bseq.001

Output Set: N:\CRF3\09262000\I479467A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1310 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
M:332 Repeated in SeqNo=2